

AMENDMENTS TO THE SPECIFICATION:

On page 1 immediately following the title, please insert headings as follows:

BACKGROUND OF THE INVENTION

Field of the Invention

On page 1, line 6 please insert a heading as follows:

Description of Related Technology

The paragraph beginning on page 2, line 4 has been changed as follows:

A receiver antenna system ~~consisting of~~ including several active individual antennae is disclosed in DE 34 37 727 A1. With the disclosed receiver antenna system, the individual antennae are positioned at relatively large spacing distances – up to a few hundred meters – from one another. The mutual electromagnetic couplings of the individual antennae, which impair the directivity, the efficiency and the antenna power gain of the receiver antenna system, are negligible with an arrangement of this kind. However, if a considerably more compact realization of a receiver antenna system is required with spacing distances between the individual antennae in the order of magnitude of a few centimetres, these mutual, electromagnetic couplings of the individual antennae are no longer negligible. In a disadvantageous manner, they lead to deformed antenna patterns of the individual antennae, to a mutual, negative influence on the base-point impedances and to unsymmetrical stresses on the individual antennae, which has the overall effect of impairing the quality of reception of the receiver antenna system.

On page 2, line 18 please insert a heading as follows:

SUMMARY OF THE INVENTION

The paragraphs beginning on page 2, line 19 have been changed as follows:

The invention is therefore based on the object of providing provides a receiver antenna system with several active individual antennae with a small spacing distance, which provides a broad bandwidth.

~~This object is achieved by~~ More particularly, the invention provides a receiver antenna system ~~according to claim 1~~ of broad bandwidth including several active, vertical individual antennae (2₁, 2₂, ..., 2_N) with an electrically-active antenna height adapted to the respective received frequency range, characterized wherein the mutual electromagnetic coupling between the individual antennae (2₁, 2₂, ..., 2_N), which are positioned at a small spacing distance, is minimized. Advantageous embodiments of the invention are specified in the dependent claims.

In order to suppress the above-named, disadvantageous effects, the currents in the individual antennae are decoupled from the electromagnetic couplings by the individual current-influencing parameters of the receiver antenna system in a received-frequency-dependent manner. The individual antennae of the receiver antenna system according to the invention are therefore designed by optimizing the current-influencing parameters of the receiver antenna system – frequency-dependent electrical antenna height (impedance elements on the radiators), antenna diameter, antenna spacing distances and input impedance of the active base-point electronics – in order to minimise the electromagnetic couplings of the individual antennae.

On page 4, line 3 please insert a heading as follows:

BRIEF DESCRIPTION OF THE DRAWINGS

On page 4, line 19 please insert a heading as follows:

DETAILED DESCRIPTION

The paragraph beginning on page 4, line 20 has been changed as follows:

The receiver antenna system according to the invention as shown in Figure 1 and Figure 2 ~~consists of~~ includes several individual antennae $2_1, 2_2, \dots, 2_N$, in the minimal configuration, two individual antennae 2_1 and 2_2 . These individual antennae $2_1, 2_2, \dots, 2_N$ are attached to a printed circuit board 3 as printed conductors. The antenna receiver system 1 has an extension 4 for the individual antenna with the largest mechanical antenna height, which receives the long-wave transmission signal. For protection, the printed-circuit board 3 with the individual antennae $2_1, 2_2, \dots, 2_N$ is enclosed within a synthetic-material tube.